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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,045	08/01/2006	Stefan Lippert	40149/01701 (068P 0667)	5035
30636 7590 10/17/2008 FAY KAPLUN & MARCIN, LLP 150 BROADWAY, SUITE 702 NEW YORK, NY 10038				
EXAMINER				
ROCCA, JOSEPH M				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/588,045

Applicant(s)

LIPPERT ET AL.

Examiner

JOSEPH ROCCA

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date 8/1/06
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment to the claims filed on 8/1/2006 with the substitute specification does not comply with the requirements of 37 CFR 1.121(c) because among other things, the status of every claim was not indicated after its claim number by using one of the following identifiers in a parenthetical expression: (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New), and (Not entered). However, the amendment this time was considered. Nevertheless all future amendments should comply with 37 C.F.R. 1.121.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the steering angle sensor of claim 5; "a further drive situated on the at least one steering drive, the further drive being one of a spindle and a rack drive," as claimed in claim 11, and also the use of first and second driving wheels and individual first and second front steering drives for the wheels, as claimed in claim 15, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 11, it is not clear what portion is being referred to as "a further drive situated on the at least one steering drive, the further drive being one of a spindle and a rack drive." Neither the claims nor specification provide clarity as to what this element may be, accordingly, the claim is unclear and indefinite.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 8 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aregger (U.S. 6,276,480 B1) in view of Matsumoto et al. (U.S. 4,778,024).

Aregger discloses a vehicle for a handicapped person, comprising:

at least one steerable front wheel (Element 7);

a frame (Element 12);

at least two wheel suspensions (Elements 13, 14, 16, 18 and 27-30);

at least two rear wheels (Elements 6), each of the at least two rear wheels being; individually coupled to the frame with a corresponding one of the at least wheel suspensions (Elements 27-30).

Aregger does not specifically disclose an at least one controllable steering drive driving the at least two rear wheels. Matsumoto discloses the use of a vehicle having at least one steerable front wheel (Element 101), and at least two rear wheels, having an at least one controllable steering drive driving the at least two rear wheels (Elements 102 and 103).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Aregger to utilize at least one controllable steering drive driving the at least two rear wheels, in view of the teachings of Matsumoto, so as to improve maneuverability of the vehicle by reducing turning radius, thereby enabling the vehicle to be operated in tighter areas. Moreover, since it is known to use a

controllable steering drive driving at least two rear wheels, on other vehicles, in view of Matsumoto, making this modification would also have been obvious as being no more than an obvious variation that one of ordinary skill in the art would recognize as no more than the predictable use of prior art elements according to their established functions.

With respect to claim 8, the combination of Aregger in view of Matsumoto further discloses the use of a change over switch for switching between predetermined travel modes, the modes defining the activation of the at least two rear wheels (wherein, this mode as broadly defined amounts to the decision of whether to turn the handlebars of the vehicle, thereby changing the mode of the wheels from facing straight ahead to facing side ways).

Regarding claim 13, the combination of Aregger in view of Matsumoto further discloses that the at least two rear wheels are pivotable by at least 90 degrees (compare Figs. 2 and 3, showing the rear wheels being pivoted more than 90 degrees).

With respect to claim 14, the combination of Aregger in view of Matsumoto further discloses a front controllable steering drive (Element 17 of Aregger), controlling at least one front wheel (Element 7 of Aregger).

7. Claim 2-3, 10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aregger (U.S. 6,276,480 B1) in view of Matsumoto et al. (U.S. 4,778,024) as applied to claim 1,8, and 13-14 above, and further in view of Itoh (U.S. Pub. App. 2004/0238259 A1). With respect to claim 2, the combination of Aregger in view of Matsumoto does not specifically further disclose that at least one steering drive includes a corresponding steering drive for each of the at least two rear wheels. Itoh

discloses the use of a vehicle having steerable rear wheels, having an at least one steering drive that includes a corresponding steering drive for each of the at least two rear wheels (either elements 21-22 or 23-24 depending on direction of the vehicle). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified the combination of Aregger in view of Matsumoto, such that the combination included said at least one steering drive includes a corresponding steering drive for each of the at least two rear wheels, in view of Itoh, since steering the rear wheels in this manner would eliminate the need for mechanical linkages, that would take a lot of space, thereby enabling the vehicle to be made more compactly and also more space efficiently. Additionally, since it is known to use a steering drive includes a corresponding steering drive for each of the at least two rear wheels on a vehicle, the choice of making this modification on another vehicle, would be no more than the simple substitution of one known means for controlling said rear wheels for another, in a manner that would have been predictable to one of ordinary skill in the art at the time of invention. Hence, making the above modification would have also been obvious as a predictable simple substitution of one old and well known means for steering steerable wheels for another known means for steering said wheels.

With respect to claim 3, the combination of Aregger in view of Matsumoto, further in view of Itoh, further discloses the use a steering drive that is a hub-drive (note that elements 21-22 or 23-24, taught by Itoh as utilized in the combination would turn the hubs of the vehicle taught by Aregger in view of Matsumoto, further in view of Itoh).

Regarding claim 10, the combination of Aregger in view of Matsumoto, further in view of Itoh, further discloses that the at least one steering drive is a linear motor (note that elements 21-22 and 23-24, are considered to be linear motors, to the extent that this term may be broadly and reasonably defined, on the basis that they are linearly above the respective wheels and that they also act to change the line of travel of the vehicle).

With respect to claim 15, the combination of Aregger in view of Matsumoto further in view of Itoh discloses that the least one front wheel includes first and second front wheels, the at least one front steering drive includes first and second first and second front steering drives, wherein each of the first and second front wheels is controllable and pivotable individually by a corresponding one of the first and second front steering drives. Regarding this claim the applicant should note that this would occur should the teaching of four wheels and four motors as taught by Itoh be applied to the combination (See, elements 11-14 (wheels) and 21-24 (motors) of Itoh).

8. Claims 4, 9, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aregger (U.S. 6,276,480 B1) in view of Matsumoto et al. (U.S. 4,778,024) as applied to claims 1-8 and 13-14 above, and further in view of Vuagnat (U.S. 4,881,755). With respect to claim 4, the combination of Aregger in view of Matsumoto further discloses: a means for holding the at least one front wheel (Element 7 is wheel, see portion supporting axle (Element 5), this is said means discussed above); and a steering rod (portion below handlebar (element 17)) connected to the said means and steering the at least one front wheel (Element 7). Nevertheless, this means is not

specifically referred to as a fork. Vuagnat discloses a steering device having a fork (elements 6 and 7), wherein a steering rod (element 2) is connected through [claim 9] a cardan joint (Col. 2, Line 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the combination of Aregger in view of Matsumoto, further in view of Itoh, to utilize a fork, wherein said fork is connected to said steering rod through a cardan joint, since use of such a steering means is old and well known and making the modification is no more than the predictable substitution of one known steering means for another.

With respect to claim 12, Aregger in view of Matsumoto further in view of Vuagnat, further discloses that the steering rod (see element 2 of Vuagnat) is pivotable parallel to an axis of the fork between two end abutments (See, Fig. 1, of Vuagnat).

9. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aregger (U.S. 6,276,480 B1) in view of Matsumoto et al. (U.S. 4,778,024) further in view of Vuagnat (U.S. 4,881,755) as applied to claims 4, 9, and 12 above, and further in view of Leitner et al. (U.S. 6,491,122 B2). The combination of Aregger in view of Matsumoto further in view of Vuagnat, does not specifically further disclose the use of a rotational angle sensor situated on the steering rod. Leitner discloses the use of a steering angle sensor situated on a steering rod (Element 44) for ensuring that an operator does not exceed a safe speed, while turning, that would make a turn unsafe (Col. 5, Line 60 to Col. 6, Line 9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified combination of Aregger in view of Matsumoto further in view of Vuagnat, to utilize at least one rotational angle sensor

situated on the steering rod, in view of Leitner, so as to improve safety by helping to ensure that the vehicle does not exceed a safe speed while a turn is in progress.

With respect to claims 6 and 7, the combination of Aregger in view of Matsumoto further in view of Vuagnat, further in view of Leitner further discloses an electronic control (wherein the related structure to element 44; Col. 5, Line 60 to Col. 6, Line 9, teaches this limitation) connected to said turning angle sensor of said steering rod.

Conclusion

10. The prior art made of record in the PTO-892 and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH ROCCA whose telephone number is (571)272-5191. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Q. Nguyen can be reached on 571-272-6952. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Q. Nguyen/
Supervisory Patent Examiner, Art Unit 3616

/Joseph Rocca/
Examiner, Art Unit 3616